

National Content Standards –

Number and Operations, Algebra, Geometry, Measurement,
Data Analysis and Probability

Process Standards - Problem Solving, Reasoning and Proof,
Communication,
and Representation

South Dakota Content Standards –

High School Algebra
Grade Standards, Supporting Skills, and Examples

Indicator 1: Use procedures to transform algebraic expressions.

9-12.A.1.1. (Comprehension) Write equivalent forms of algebraic expressions using properties of the set of real numbers.

Indicator 2: Use a variety of algebraic concepts and methods to solve equations and inequalities.

9-12.A.2.1. (Comprehension) Use algebraic properties to transform multi-step, single variable and first-degree equations.

9-12.A.2.2. (Application) Use algebraic properties to transform multi-step, single variable and first-degree inequalities and represent solutions using a number line.

Indicator 3: Interpret and develop mathematical models.

9-12.A.3.1. (Application) Create linear models to represent problem situations.

9-12.A.3.2. (Comprehension) Distinguish between linear and nonlinear models.

Indicator 4: Describe and use properties and behaviors of relations, functions, and inverses.

9-12.A.4.1. (Application) Use graphs, tables, and equations to represent linear functions.

High School Geometry
Grade Standards, Supporting Skills, and Examples

Indicator 1: Use deductive and inductive reasoning to recognize and apply properties of geometric figures.

9-12.G.1.1. (Application) Apply the properties of triangles and quadrilaterals to find unknown parts.

9-12.G.1.2. (Application) Identify and apply relationships among triangles.

Indicator 2: Use properties of geometric figures to solve problems from a variety of perspectives.

9-12.G.2.1. (Analysis) Recognize the relationship between a three-dimensional figure and its two-dimensional representation.

9-12.G.2.2. (Application) Reflect across vertical or horizontal lines, and translate two-dimensional figures

9-12.G.2.3. (Application) Use proportions to solve problems.

High School Measurement Grade Standards, Supporting Skills, and Examples

Indicator 1: Apply measurement concepts in practical applications.

9-12.M.1.1. (Comprehension) Choose appropriate unit label, scale, and precision.

9-12.M.1.2. (Comprehension) Use suitable units when describing rate of change.

9-12.M.1.3. (Application) Use formulas to find perimeter, circumference, and area to solve problems involving common geometric figures.

High School Number Sense Grade Standards, Supporting Skills, and Examples

Indicator 1: Analyze the structural characteristics of the real number system and its various subsystems. Analyze the concept of value, magnitude, and relative magnitude of real numbers.

9-12.N.1.1. (Comprehension) Identify multiple representations of a real number.

9-12.N.1.2. (Comprehension) Apply the concept of place value, magnitude, and relative magnitude of real numbers.

Indicator 2: Apply operations within the set of real numbers.

9-12.N.2.1. (Comprehension) Add, subtract, multiply, and divide real numbers including integral exponents.

Indicator 3: Develop conjectures, predictions, or estimations to solve problems and verify or justify the results.

9-12.N.3.1. (Analysis) Use estimation strategies in problem situations to predict results and to check the reasonableness of results.

9-12.N.3.2. (Comprehension) Select alternative computational strategies and explain the chosen strategy.

High School Statistics & Probability Grade Standards, Supporting Skills, and Examples

Indicator 1: Use statistical models to gather, analyze, and display data to draw conclusions.

9-12.S.1.1. (Analysis) Draw conclusions from a set of data.